CLAIMS

We claim:

1. An immunogenic conjugate comprising a *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide covalently linked to a carrier, wherein the conjugate elicits an immune response in a subject.

2. The conjugate of claim 1, wherein the conjugate comprises a γPGA polypeptide comprising 1-20 glutamic acid residues.

3. The conjugate of claim 1, wherein the conjugate comprises a γPGA polypeptide comprising 10-15 glutamic acid residues.

4. The conjugate of claim 1, wherein the conjugate comprises a decameric γPGA polypeptide.

5. The conjugate of claim 1, wherein the carrier is selected from the group consisting of: (a) bovine serum albumin, (b) recombinant *B. anthracis* protective antigen, (c) recombinant *P. aeruginosa* exotoxin A, (d) tetanus toxoid, (e) diphtheria toxoid, (f) pertussis toxoid, (g) *C. perfringens* toxoid, (h) hepatitis B surface antigen, (i) hepatitis B core antigen, (j) keyhole limpet hemocyanin, (k) horseshoe crab hemocyanin, (l) edestin, (m) mammalian serum albumins, (n) mammalian immunoglobulins, analogs or mimetics of (a)-(n), and combinations of two or more thereof.

6. The conjugate of claim 1, wherein the carrier comprises recombinant *B. anthracis* protective antigen.

7. The conjugate of claim 1, wherein the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide comprises a *B. anthracis*, *B. licheniformis*, *B. pumilus*, *or B. subtilis* γPGA polypeptide.

8. The conjugate of claim 1, wherein the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide comprises the D- or L-conformation.

9. The conjugate of claim 1, wherein the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide comprises a *B. anthracis* γDPGA polypeptide.

10. The conjugate of claim 1, wherein the *Bacillus* poly-γ-glutamic acid (γPGA) polypeptide comprises a decameric *B. anthracis* γDPGA polypeptide and the carrier comprises recombinant *B. anthracis* protective antigen.

11. The conjugate of claim 1, wherein the carrier is covalently linked to either the amino or carboxyl terminus of the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide.

12. The conjugate of claim 1, wherein the carrier is covalently linked to the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide via a thioether, disulfide, or amide bond.

13. The conjugate of claim 1, wherein the density of *Bacillus* poly-γ-glutamic acid (γPGA) polypeptide to carrier is between about 5:1 and about 32:1.

14. The conjugate of claim 1, wherein the density of *Bacillus* poly-γ-glutamic acid (γPGA) polypeptide to carrier is between about 10:1 and about 15:1.

15. The conjugate of claim 1, wherein the γPGA polypeptide is covalently linked to the carrier via an aldehyde (CHO)/adipic acid hydrazide (AH) linkage.

16. A composition comprising the conjugate of any one of claims 1-15 and a pharmaceutically acceptable carrier.

17. The composition of claim 16, further comprising an adjuvant.

18. A composition comprising the conjugate of claim 9 and a pharmaceutically acceptable carrier.

19. The composition of claim 18, further comprising an adjuvant.

20. A method of eliciting an immune response against a *Bacillus* antigenic epitope in a subject, comprising introducing into the subject the composition of claim 17, thereby eliciting an immune response in the subject.

21. The method of claim 20, wherein the immune response is elicited against the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide.

22. The method of claim 20, wherein the immune response is elicited against the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide and the carrier protein.

23. The method of claim 20, wherein the immune response comprises opsonophagocytic activity.

24. A method of eliciting an immune response against a *B. anthracis* antigenic epitope in a subject, comprising introducing into the subject the composition of claim 19, thereby eliciting an immune response in the subject.

25. The method of claim 24, wherein the immune response is elicited against the *B. anthracis* capsular poly-γ-D-glutamic acid (γDPGA) polypeptide.

26. The method of claim 24, wherein the immune response is elicited against the *B. anthracis* capsular poly-γ-D-glutamic acid (γDPGA) polypeptide and the carrier protein.

27. The method of claim 24, wherein the immune response comprises opsonophagocytic activity.

28. An isolated antibody that binds to the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide of claim 1.

29. An isolated antibody that recognizes antigenic epitopes on both the *Bacillus* capsular poly-γ-glutamic acid (γPGA) polypeptide and the carrier protein of claim 1.

30. An isolated antibody that binds to the *B. anthracis* capsular poly-γ-D-glutamic acid (γDPGA) polypeptide of claim 9.

31. An isolated antibody that recognizes antigenic epitopes on both the *B. anthracis* capsular poly-γ-D-glutamic acid (γDPGA) polypeptide and the carrier protein of claim 9.

32. A composition comprising the conjugate of any one of claims 1-15 for use in eliciting an immune response against a *Bacillus* antigenic epitope in a subject.

33. A composition comprising the conjugate of claim 9 for use in eliciting an immune response against a *B. anthracis* antigenic epitope in a subject.